

48. The method of claim 47, wherein steps (a) and (b) are repeated for an additional reservoir.

49. The method of claim 48, wherein steps (a) and (b) are repeated at a rate of at least 1 reservoir per second.

50. The method of claim 49, wherein steps (a) and (b) are repeated at a rate of at least 10 reservoirs per second.

Period has been added
51. The method of claim 50, wherein steps (a) and (b) are repeated at a rate of at least 100 reservoirs per second.

52. The method of claim 47, wherein the acoustic radiation generated in step (c) is focused before transmitted through the exterior surface of the reservoir.

53. The method of claim 52, wherein the focused acoustic radiation ejects a droplet of fluid from the reservoir.

54. The method of claim 47, further comprising assessing the contents of the reservoir by analyzing a characteristic of acoustic radiation transmitted through the reservoir.

55. The method of claim 47, wherein step (a) is carried out by transporting the acoustic coupling fluid from a source of the acoustic coupling fluid through an outlet of a nozzle that opens toward the exterior surface of the reservoir at a flow rate sufficient for the acoustic coupling fluid to establish conformal contact with the exterior surface of the reservoir.

56. The method of claim 55, further comprising (d) collecting excess acoustic coupling fluid flowing from nozzle.

39. The device of claim 31, wherein the means for positioning the acoustic radiation generator has a structure does not substantially alter the volume of the acoustic coupling fluid within the container while positioning the acoustic radiation generator, and the structure serves as the means for eliminating uncontrolled flow of the acoustic coupling fluid.

40. A device for acoustically ejecting fluids from a plurality of reservoirs, comprising:
a plurality of reservoirs each adapted to contain a fluid and each having an exterior surface;
an ejector for ejecting droplets from the reservoirs, comprising an acoustic radiation generator for generating acoustic radiation and a focusing means for focusing the acoustic radiation generated;
a means for delivering an acoustic coupling fluid to the exterior surface of at least one of the reservoirs;
a means for positioning the ejector in acoustic coupling relationship via the acoustic coupling fluid to the at least one reservoir such that acoustic radiation generated by the acoustic radiation generator and focused by the focusing means is transmitted through the exterior surface and into any fluid contained in the at least one reservoir so as to eject a droplet therefrom; and
a means for eliminating uncontrolled flow of the acoustic coupling fluid at the exterior surface as a result of movement of the acoustic radiation generator.

41. The device of claim 40, wherein the means for positioning the ejector is constructed to position the ejector so as to establish acoustic coupling of the ejector to a plurality of reservoirs successively at a rate of at least 1 reservoir per second.

Period has been added
42. The device of claim 41, wherein the means for positioning the ejector is constructed to position the ejector so as to establish acoustic coupling of the ejector to a plurality of reservoirs successively at a rate of at least 10 reservoirs per second.